WHAT IS CLAIMED IS:

1. A method for a substrate article, said method comprising:

thermally spraying a coating material onto a surface of the substrate article, wherein a surface of contact between the coating material and the substrate article defines a bondline; and

nondestructively testing the coated article by:

generating an eddy current in the coated article;

measuring the eddy current in the coated article; and

evaluating a near-bondline region of the coated article located adjacent to the bondline using the measured eddy current.

2. A method in accordance with Claim 1 wherein thermally spraying a coating material onto a surface comprises coating an external surface of a gas turbine stationary seal.

3. A method in accordance with Claim 1 wherein thermally spraying a coating material onto a surface comprises coating a surface of an article fabricated from at least one of a nickel-base alloy and a cobalt-base alloy.

4. A method in accordance with Claim 1 further comprising heat treating the substrate article after thermally spraying a coating material onto the surface of the substrate article.

5. A method in accordance with Claim 1 wherein thermally spraying a coating material onto the surface of the substrate article further comprises thermally spraying the coating material using at least one of a high velocity oxyfuel spray, an air plasma spray, a low-pressure-plasma spray, an electric wire arc, a combustion wire spray, and a combustion powder spray.

6. A method in accordance with Claim 1 wherein thermally spraying a coating material onto the surface of the substrate article further comprises thermally spraying a metallic material onto a substrate of the article.

7. A method in accordance with Claim 1 wherein thermally spraying a coating material onto the surface of the substrate article further comprises depositing a layer of coating material onto the surface of the substrate to have a thickness of between approximately 0.002 and 0.150 inches.

8. A method in accordance with Claim 1 wherein nondestructively testing the coated article further comprises:

coupling the coated article on a turntable; and

inducing an eddy current into the coated article while the turntable is rotating.

9. A method in accordance with Claim 1 wherein nondestructively testing the coated article further comprises:

generating an eddy current in the coated article using a cam follower probe; and

recording the measured eddy current using at least one of a computer and a recorder.

10. A method in accordance with Claim 1 further comprising:

coupling a cam follower probe to a robotic arm; and

manipulating the robotic arm such that the cam follower probe generates an eddy current in the coated article.

11. A system for use in testing an article having a thermal-spray coating thereon, said system comprising:

a turntable having a thermally-coated substrate article positioned thereon;

an eddy current probe operatively coupled to said substrate article, said eddy current probe configured to generate an eddy current within said coated substrate article and to measure the eddy current within said coated substrate article; and

a processor configured to determine a near-bondline region of said coated article located adjacent to a bondline using the measured eddy current.

12. A system in accordance with Claim 11 wherein said eddy current probe comprises a cam follower probe configured to translate along an outer periphery of said coated substrate article; and to generate an eddy current within said coated substrate article.

13. A system in accordance with Claim 12 further comprising a robotic arm coupled to said cam follower probe, said robotic arm configured to receive instructions from a computer and to translate said cam follower probe along an outer periphery of said coated substrate article in accordance with said received instruction.

14. A system in accordance with Claim 11 wherein said eddy current probe comprises:

a drive coil;

a pulse generator operable to energize said drive coil in a pulsed manner to transmit a transient electromagnetic flux to into a metallic object under inspection; and

at least one sensor operable to generate output signals representative of time varying eddy currents produced in said coated article substrate from said transient electromagnetic flux.

15. A system in accordance with Claim 14 wherein said at least one sensor is configured to determine a near bond-line fault that is less than approximately 0.03125 inches in depth, and less than approximately 0.020 inches in width.

16. A system in accordance with Claim 14 further comprising a processor coupled to said at least one sensor and configured to:

measure the output signals representative of the time-varying eddy currents resulting from said transient electromagnetic flux;

determine whether measured output signals exceed a predetermined threshold.

17. A system in accordance with Claim 11 further comprising a data acquisition/control system configured to record an output received from said eddy current probe.

18. A system in accordance with Claim 11 wherein said turntable is configured to rotate while said eddy current probe is generating an eddy current within said coated substrate article.

19. A system in accordance with Claim 11 wherein said coated substrate article comprises a gas turbine engine stationary seal.

20. A system in accordance with Claim 19 wherein said gas turbine engine stationary seal comprises a metallic material thermally sprayed onto a surface of said stationary seal.